

REMARKS

In this paper, claims 1, 20 and 22 are currently amended. After entry of the above amendment, claims 1-38 are pending.

The applicant appreciates the allowance of claims 10-12 and 31-33.

Claims 1-7, 13, 18, 20-28 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ethington (US 5,681,234) in view of Browning (US 5,261,858). This basis for rejection is respectfully traversed.

In applicant's previous response, independent claims 1, 20 and 22 were amended to clarify that, when the transmission control unit receives at least one shift command requesting a shift through N speed stages to a requested destination speed stage, where N is an integer greater than one, the transmission control unit generates information for causing the first transmission and the second transmission in combination to move a total of M times to move to a different destination speed stage, where M is an integer less than N, without regard to whether or not the first transmission and the second transmission would be temporarily set in a speed stage outside a range between the origin speed stage and the requested destination speed stage when moving from the origin speed stage to the requested destination speed stage. The claims have been further amended to clarify that the different destination speed stage has a gear ratio in close proximity to a gear ratio of the requested destination speed stage.

The office action takes the position that the disregard of whether the first and second transmissions are set temporarily in a speed stage outside of a range between the origin and destination speed stages would be obvious because the MPEP and precedent hold that the omission of a step or an element and its function is obvious if the function is not desired. However, in all of the cited precedent, the omitted element(s) provided a benefit when the devices were used in a particular environment. When used in a different environment, omission of the disputed element(s) produced no disadvantage.

By contrast, the claimed invention does not eliminate a *beneficial element* that has no benefit in a particular environment. Instead, the claimed invention eliminates an *undesirable constraint* that was considered desirable by Browning in *all* environments. That is, according to Browning, disregarding whether the first and second transmissions are set temporarily in a speed stage outside of a range between the origin and destination speed stages *always* holds the possibility of degrading the performance of the bicycle. Applicant's claimed invention provides benefits in situations above and beyond that recognized and taught in the prior art. Namely, reducing the number of transmission movements without the constraints imposed by Browning.

Claims 14-16 and 35-37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ethington in view of Browning and Colbert, et al (US 5,213,548). This basis for rejection is respectfully traversed for the same reasons noted above. Furthermore, there is no evidence or suggestion that Colbert's sensor would increase efficiency of a system such as that disclosed in either Ethington or Browning.

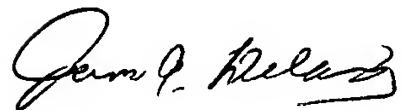
Claims 17, 19 and 38 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ethington in view of Browning and Spencer, et al (US 6,047,230). This basis for rejection is respectfully traversed for the same reasons noted above. Furthermore, there is no evidence or suggestion that Spencer, et al's cadence sensor would increase efficiency and safety of a system such as that disclosed in either Ethington or Browning.

Accordingly, it is believed that the rejections under 35 U.S.C. §103 have been overcome by the foregoing amendment and remarks, and it is submitted that the claims are in condition for allowance. Reconsideration of this application as amended is respectfully requested. Allowance of all claims is earnestly solicited.

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